

REMARKS

Claims 26, 28-45, and 50 are currently pending, of which claims 26 and 50 are independent.

In the Final Office Action mailed December 21, 2010, the Examiner rejected all pending claims. Claims 26, 28, 31-33, 40, and 46-50 were rejected as allegedly being unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,688,127 ("*Laubacher*") in view of U.S. Patent No. 6,622,028 ("*Abdelmonem-028*").¹ The Examiner also rejected dependent claims 29, 30, 34-39, and 41-45 under 35 U.S.C. § 103(a) as being unpatentable over *Laubacher* in view of *Abdelmonem-028* and further in view of one of U.S. Patent Application Publication No. 2002/0151331 ("*Abdelmonem-331*"), U.S. Patent Application Publication No. 2003/0227350 ("*Abdelmonem-350*"), U.S. Patent Application Publication No. 2005/0164888 ("*Hey-Shipton*"), U.S. Patent No. 6,263,215 ("*Patton*"), and U.S. Patent No. 6,011,524 ("*Jervis*").

Applicant respectfully requests reconsideration of the final rejections of claims 26, 28-45, and 50 for the following reasons.

Rejections of Claims 26, 28, 31-33, 40, and 50 Under 35 U.S.C. § 103(a)

Claims 26, 28, 31-33, 40, and 50 stand rejected over *Laubacher* in view of *Abdelmonem-028*. This rejection should be withdrawn because the reasons articulated in the Final Office Action are unsupportable as a matter of law.

¹ Although the rejection over *Laubacher* in view of *Abdelmonem-028* includes claims 46-49, those claims were canceled in the Reply to Office Action filed October 27, 2010. Applicant presumes that the Examiner intended to apply this rejection only to claims 26, 28, 31-33, 40, and 50.

Claims 26 and 50 are the independent claims in this rejection statement.

Amended independent claim 26, for example, recites:

A receiver front-end for use in a transceiver station of a wireless communication network, said transceiver station being associated with an antenna assembly comprising a primary and at least a secondary antenna, said receiver front-end being adapted for insertion between said antenna assembly and signal processing sections of said transceiver station, said receiver front-end comprising a primary and at least a secondary receiving branch, said primary receiving branch being adapted for coupling to said primary antenna and to said signal processing sections of said transceiver station and said secondary receiving branch being adapted for coupling to said secondary antenna and to said signal processing sections, said secondary receiving branch comprising at least one superconducting component, **wherein said primary receiving branch consists of non-superconducting components** including at least one non-superconducting filter.

(Emphasis added.)

The Examiner acknowledges that *Laubacher* fails to disclose a primary receiving branch consisting of non-superconducting components, and relies on *Abdelmonem-028* to allegedly fill that void. According to the Final Office Action, *Abdelmonem-028* discloses the claimed primary and secondary receiving branches:

Abdelmonem [US 6622028] does disclose limitations in A> above, said secondary receiving branch [path of input 58 to output 62, Fig. 6] comprising at least one superconducting component [High Temperature Superconducting HTS filter 58 structured in Fig. 6/Fig. 2-5], wherein said primary receiving branch [path of input of 60 to output of 258] consists of non-superconducting components including at least one non-superconducting filter, normal filter 60 [the switching of receiving path to the path with superconducting HTS filter or to the path with normal filter, description of Fig. 2-6 for the rf front-end of the cellular base station, co[I]. 1, lines 14-26; Fig. 4/col. 8, lines 23-48, any non-HTS band

pass filter can be used for filter 60, for better signal rejection, noise floor in col. 6, lines 42-53].

Final Office Action at 10-11, emphasis in original. This rationale for rejecting independent claim 26 is legally incorrect for at least two reasons.

First, the Final Office Action misapprehends the meaning of the phrase “consists of” in the pending claims. The transitional phrase “consists of” is a term of art that excludes any structure not specifically recited in conjunction with the phrase. MPEP § 2111.03 at 2100-44 (Rev. 8, July 2010). “When the phrase ‘consists of’ appears in a clause of the body of a claim, rather than immediately following the preamble, it limits only the element set forth in that clause; other elements are not exclude from the claim as a whole.” *Id.*, citing *Mannesmann Demag Corp. v. Engineered Metal Prods. Co.*, 793 F.2d 1279, 230 USPQ 45 (Fed. Cir. 1986). Thus, for independent claim 26, a reference disclosing a “primary receiving branch [that] consists of non-superconducting components” must disclose a primary receiving branch having only non-superconducting components.

Contrary to the conclusion in the Final Office Action, the cited art neither discloses nor suggests these requirements. *Abdelmonem-028* discloses a receiver front-end having a receiving branch for RF signals between its “RF IN 68” and “RF OUT 70.” That receiving branch includes two main components: a superconducting filter 24 (or 58) used in normal operation and a parallel backup path having a non-superconducting filter 30 (or 60) used if the superconducting filter 24 (or 58) fails. *Abdelmonem-028* at 2:21-25 (“If the cooling system 18 is not functioning or otherwise not performing adequately, the bypass switch 14 provides the incoming RF

signal to a conventional (i.e., non-HTS) filter 30 designed to remove signal components outside the same passband as that of the HTS filter 24.”). With this receiving branch having both superconducting and non-superconducting components, *Abdelmonem-028* does not disclose or render obvious a receiver front-end having a primary receiving branch that “consists of non-superconducting components.”

Second, the Final Office Action errs in concluding that the non-superconducting “path of input of 60 to output of 258” in *Adelmonem-028* corresponds to the claimed “primary receiving branch,” while the superconducting “path of input 58 to output 62, Fig. 6” corresponds to the claimed “secondary receiving branch.” Final Office Action at 10. This mapping contradicts *Adelmonem-028*’s disclosure that its non-superconducting path exists as a “bypass” in case of failure to the superconducting filter and, therefore, is not a “primary receiving branch.” The Examiner’s mapping is also flawed because claim 26 requires that the separate primary and secondary branches are coupled to respective primary and secondary antennas:

a “primary receiving branch being adapted **for coupling to said primary antenna** and to said signal processing sections of said transceiver station ... **wherein said primary receiving branch consists of non-superconducting components** including at least one non-superconducting filter”; and

a “secondary receiving branch being adapted **for coupling to said secondary antenna** and to said signal processing sections, said secondary receiving branch comprising at least one superconducting component.”

(Emphasis added.) The two filters 58 and 60 of *Adelmonem-028* are part of the same “receiving branch” at least because they are coupled to an antenna via a common

RF IN. As discussed above, that common receiving path of *Adelmonem-028* between RF IN and RF OUT does not “consist[] of non-superconducting components.” Consequently, the rejection of independent claim 26 is erroneous and should be withdrawn.

These errors exist for the rejection of independent claim 50 as well. Similar to claim 26, claim 50 recites in part a transceiver station comprising a receiver front-end “comprising a primary and at least a secondary receiving branch, said primary receiving branch being adapted for coupling to said primary antenna and to said signal processing sections of said transceiver station and said secondary receiving branch being adapted for coupling to said secondary antenna and to said signal processing sections, said secondary receiving branch comprising at least one superconducting component, wherein said primary receiving branch consists of non-superconducting components including at least one non-superconducting filter.” Accordingly, the final rejection of claim 50 should be withdrawn.

Further, claims 28, 31-33, and 40 depend, either directly or indirectly, from independent claim 26 and should be allowable for at least the same reasons discussed above that claim 26 is allowable. Therefore, Applicant respectfully requests reconsideration and withdrawal of the Section 103(a) rejection of claims 26, 28, 31-33, 40, and 50 based on *Laubacher* in view of *Abdelmonem-028*.

Rejections of Claims 29, 30, 34-39, and 41-45 Under 35 U.S.C. § 103(a)

In the Final Office Action, dependent claims 29, 30, 34-39, and 41-45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Laubacher* in view of *Abdelmonem-028* as applied to independent claim 26 and further in view of one or more

of *Abdelmonem-331*, *Abdelmonem-350*, *Hey-Shipton*, *Patton*, and *Jervis*. Claims 29, 30, 34-39, and 41-45 depend, either directly or indirectly from amended independent claim 26, which is allowable over *Laubacher* in view of *Abdelmonem-028* for at least the reasons outlined above. *Abdelmonem-331*, *Abdelmonem-350*, *Hey-Shipton*, *Patton*, and *Jervis*, regardless of whether they are viewed individually or as a whole, do not remedy the deficiencies of *Laubacher* in view of *Abdelmonem-028* outlined above, nor does the Examiner so contend. They do not appear to disclose or render obvious, at least, a receiver front-end for use in a transceiver station of a wireless communication network, "said secondary receiving branch comprising at least one superconducting component, wherein said primary receiving branch consists of non-superconducting components including at least one non-superconducting filter," as recited in Applicant's independent claim 26. Therefore, the 35 U.S.C. § 103(a) rejections of dependent claims 29, 30, 34-39, and 41-45 cannot be maintained and should be withdrawn.

In view of the foregoing remarks, Applicant submits that this claimed invention, is neither anticipated nor rendered obvious in view of the references cited against this application. Applicant therefore requests the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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